(c) Remarks

The claims are 1-12 and 14 with claims 1-4 being independent. Claims 1-4 were amended to better define the intended invention. Reconsideration of the claims is expressly requested.

Claims 1-4 were amended to provide for continuously transporting the substrate through the reactor during film formation. *See* Example 3, page 38, lines 20-23; Example 1, page 27, lines 17-19, page 12, lines 18-23 and page 16, lines 2-6. The first and second layers of the deposited film are formed from the same constituents and therefore have the same properties, including conductivity. *See*, for example, Fig. 1 where a silicon source gas is fed into inner container 100 (page 13, lines 16-22) and thereafter a silicon source gas is fed into inner container 109, page 15, lines 15-20.

The deposited film is successively formed on the substrate as a result of the first step of depositing the first layer and the second step, after switching, of depositing the second layer. *See* page 14-16 including page 16, lines 2-6. *See also* page 32, line 13 to page 34, line 8 in which a p-type semiconductor layer was formed on substrate 406 in successive steps via electrodes 418 and 422 in spaces 416 and 420.

Claims 1-12 and 14 were rejected under Rule 112, second paragraph as not indicating what in the two layers of the film are identical. The claims were amended to clarify that the constituents forming the film layers are the same. Therefore, the properties of the layers, including conductivity are also the same.

Claims 1-12 and 14 were rejected as obvious over Moslehi '609 in view of Chan '811. The grounds of rejection are respectfully traversed.

Prior to addressing the previously advanced grounds of rejection, Applicant wishes to briefly review again certain key features and advantages of the present claimed invention.

In the present invention, for example, semiconductor layers of the same i-type are formed in both the first step and the second step. That is, the first step and the second step are each the same film-forming step and are alternately switched and stopped so that the film formation temperature of one whose temperature is unduly elevated, is adjusted. Therefore, while the first step and the second step overlap with each other during

the course of switching (*i.e.*, a state in which a discharge takes place in each electrode), the formation of deposited films in the stationary state is carried out only by one of the two electrodes. Thus, semiconductor layers of the same conductivity type (having substantially the same constituents and properties) are formed in both the first step and the second step.

Moslehi discloses the switching of a plurality of discharge means, but each discharge means is primarily used in processes different in purpose (see, for example, column 9, lines 8-23). Hence, the discharge means in Moleshi are different from each other in type (see column 8, lines 62 to column 9, line 2).

Chan discloses an apparatus in which plasma is generated by a plurality of electrodes. However, the objective of Chan is to generate uniform plasma near a substrate by using a plurality of electrodes (see claim 1 and the description of SUMMARY OF THE INVENTION).

Accordingly, in Chan, high frequency power is necessarily applied continuously to all the electrodes. The reason for this is that a uniform plasma cannot be generated until high frequency power is applied to all the electrodes. If high frequency power is not applied to an electrode, then a non-uniform plasma is generated. Therefore, in Chan there is no teaching of switching a first step to a second step (or switching high frequency power applied to each electrode), since this would create a non-uniform plasma.

The present invention switches a first step and a second step from one to another successively to form deposited films on a moving substrate. Even a system in which film formation temperature rises during processing which can adversely affect the deposited film properties, can be modified to constantly form deposited films having good properties over a long period of time.

Further, in Moslehi the discharge means are different in kind from each other, ranging from u.v. irradiation to microwave irradiation, thermal heating, RF power and ECR plasma. These sources do not act in concert as in applicant's first and second electrodes connected to RF power sources to form deposited films of semiconductor layers and acting at different positions for a belt-like substrate. Moslehi is devoid of disclosure relating to applicant's first and second steps of <u>applying electric power at pre-set temperatures at different belt positions</u>.

In Chen, different plasmas form different layers. In Chen there is no teaching of employing plural electrodes to form the <u>same film layer</u>.

It should be understood the present invention is a process requiring specific steps conducted in the indicated order and at the indicated switching time. Moslehi fails to teach or suggest applicant's sequence of steps controlled by present switching indicia. There is no teaching in Moslehi or Chen, either individually or in combination, of the claimed sequence of steps. Moslehi actually creates the very problem applicant has solved. Having failed to understand the problem, how can Moslehi suggest a solution to an unknown problem. *Ex parte Wisdom*, (POBA 1973) 184 USP2 822.

Accordingly, Applicant submits that none of the references, whether alone or combined, discloses or suggests the present claimed invention nor renders it unpatentable. Accordingly, it is respectfully requested that the claims be allowed and that the case be passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,

/Peter Saxon/
Peter Saxon
Attorney for Applicants
Registration No. 24,947

FITZPATRICK, CELLA, HARPER & SCINTO
30 Rockefeller Plaza
New York, New York 10112-3801
Facsimile: (212) 218-2200

FCHS_WS 2769779v1